

REMARKS

The Application has been carefully reviewed in light of the Office Action mailed July 28, 2004 by the Office. At the time of this Office Action, Claims 1-25 were pending in the Application, of which Claims 1-25 were rejected. In order to advance prosecution of this case, Claims 1, 10, 11, 12, 14, 21, 24, and 25 have been amended to overcome the rejections asserted by the Office and/or to more clearly state what the Applicants claim as their invention. It is believed that the amended claims do not involve any introduction of new matters, whereby entry is believed to be in order and is respectfully requested. The Applicants respectfully request reconsideration and favorable action in this case.

The following actions were taken or matters raised: (I) The drawings received via facsimile (i.e., fax) on January 9, 2004 were noted of being fax quality and a request for a set of original drawings was made; (II) The Office acknowledged consideration of the remarks presented in the previous response by the Applicant and, for stated reasons, noted that the Office maintains the rejections stated in the Office Action mailed February 26, 2004; (III) Claims 1, 2, 3, 5, 6, 8, 9, 13, 14, 16, 18, 19, 20 and 24 were rejected under 35 U.S.C. § 102(e) as being anticipated by Sansom-Wai et al. (US Patent No. 6,310,984); (IV) Claim 25 was rejected under 35 U.S.C. § 102(e) as being anticipated by Hulan et al. (US Patent No. 5,987,270); (V) Claims 4 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sansom-Wai et al. (US Patent No. 6,310,984); (VI) Claims 7, 10 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sansom-

Wai et al. (US Patent No. 6,310,984) and further in view of Liao (US Patent No. 5,467,172); (VII) Claims 17, 22 and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sansom-Wai et al. (US Patent No. 6,310,984) and further in view of Hulan et al. (US Patent No. 5,987,270); and (VIII) Claims 11 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sansom-Wai et al. (US Patent No. 6,310,984) and in view of Liao (US Patent No. 5,467,172), and further in view of Hulan et al. (US Patent No. 5,987,270).

I. Claims 1-3, 5, 6, 8, 9, 13, 14, 16, 18-20 and 24 Rejected Under 35 U.S.C. 102(e)

The Office has rejected Claims 1-3, 5, 6, 8, 9, 13, 14, 16, 18-20 and 24 under 35 U.S.C. § 102(e) as being anticipated by Sansom-Wai et al. (US Patent No. 6,310, 984). Amended independent Claims 1, 14 and 24, and hence any claims dependent thereon, include novel physical features that provide new and advantageous results in view of Sansom-Wai, making such amended Claims novel, non-obvious and, thus, patentable over Sansom-Wai. Accordingly, the Applicants submit that the rejection under 35 U.S.C. § 102(e) applied to Claims 1-3, 5, 6, 8, 9, 13, 14, 16, 18-20 and 24 is overcome and respectfully requests the Office to withdraw the rejection of Claims 1-3, 5, 6, 8, 9, 13, 14, 16, 18-20 and 24 under 35 U.S.C. § 102(e) as being anticipated by Sansom-Wai.

Methods, surface deviation detectors and scanner systems in accordance with amended Claims 1, 14 and/or 24 and associated dependent claims exhibit physical and/or

functional distinctions that are novel, advantageous and non-obvious in view of Sansom-Wai, Hulan and/or Liao. Examples of such physical and/or functional distinctions include 1.) scanning in a manner configured for promoting generation of shadows corresponding to surface deviations within a scanned area, and 2.) Differentiating between a shadow resulting from a surface deviation associated with said at least one edge and a shadow corresponding to a surface deviation associated with a scanned non-edge feature (e.g., a hair, a scratch, a dent, etc).

As acknowledged by the Office, Sansom-Wai makes does not explicitly disclose means for creating shadows that are detected by the sensor. Additionally, the Applicants submit that, while Hulan discloses the undesirability of shadows around the edges of images and trimming of images to no eliminate such shadows, Hulan makes no mention and presents no motivation for differentiating between a shadow resulting from a surface deviation associated with said at least one edge and a shadow corresponding to a surface deviation associated with a scanned non-edge feature for the purpose of identifying an edge of a document. In fact, in the two incorporated references (i.e., patent applications of James Amidei mentioned at col. 9, line 51-56, which are now US patents 5,995,661 and 5,920,406) that Hulan states as disclosing criteria upon which edges are identified (i.e., locating process 48), no mention whatsoever is made of shadows or associated edge identification approaches.

II. Claim 25 Rejected Under 35 U.S.C. 102(e)

The Office has rejected Claim 25 under 35 U.S.C. § 102(e) as being anticipated by Hulan et al. (US Patent No. 5,987,270). Amended independent Claim 25 and hence any claims dependent thereon, include novel physical features that provide new and advantageous results in view of Hulan, making such amended Claim novel, non-obvious and, thus, patentable over Hulan. Accordingly, the Applicants submit that the rejection under 35 U.S.C. § 102(e) applied to Claim 25 is overcome and respectfully requests the Office to withdraw the rejection of Claim 25 under 35 U.S.C. § 102(e) as being anticipated by Hulan.

Scanner systems in accordance with amended Claim 25 exhibit physical and/or functional distinctions that are novel, advantageous and non-obvious in view of Sansom-Wai, Hulan and/or Liao. Examples of such physical and/or functional distinctions include 1.) scanning in a manner configured for promoting generation of shadows corresponding to surface deviations within a scanned area, and 2.) Differentiating between a shadow resulting from a surface deviation associated with said at least one edge and a shadow corresponding to a surface deviation associated with a scanned non-edge feature (e.g., a hair, a scratch, a dent, etc).

The Applicants submit that, while Hulan discloses the undesirability of shadows around the edges of images and trimming of images to no eliminate such shadows, Hulan

makes no mention and presents no motivation for differentiating between a shadow resulting from a surface deviation associated with said at least one edge and a shadow corresponding to a surface deviation associated with a scanned non-edge feature for the purpose of identifying an edge of a document. In fact, in the two incorporated references (i.e., patent applications of James Amidei mentioned at col. 9, line 51-56, which are now US patents 5,995,661 and 5,920,406) that Hulan states as disclosing criteria upon which edges are identified (i.e., locating process 48), no mention whatsoever is made of shadows associated edge identification approaches.

III. Claims 4, 7, 10, 11, 12, 15, 17, 21, 22 and 23 Rejected Under 35 U.S.C. 103(a)

The Office has rejected Claims 4, 7, 10, 11, 12, 15, 17, 21, 22 and 23 under 35 U.S.C. § 103(a) as being unpatentable over at least one of Sansom-Wai (US Patent No. 6,310,984), Liao (US Patent No. 5,467,172) and Hulan (US Patent No. 5,987,270). The Applicants respectfully submit that the rejection of Claims 4, 7, 10, 11, 12, 15, 17, 21, 22 and 23 in view of Sansom-Wai, Liao, and/or Hulan is traversed. Specifically, in view of the amendments and remarks presented above with respect to rejection of Claims 1 and 14 under 35 U.S.C. § 102(e), the Applicants submit that Claims 1 and 14, upon which claims 2-13 and 14-23 depend, respectively, are novel and non-obvious with respect to Sansom-Wai, Liao, and/or Hulan. Hence, Claims 1-13 and 14-23 are novel and non-obvious with respect to Sansom-Wai, Liao, and/or Hulan.

Specific to the assertion made by the Office with respect to Claim 10, the Applicants submit that the lighting module 40 disclosed in Liao teaches away from two light sources being configured to produce respective shadows corresponding to surface deviations and that Liao makes no mention of analyzing such respective shadows. The lighting module 40 disclosed in Liao includes two lights 7 and a lighting guide 5 centered between the lights 7. The light guide 5 is intended to make the light generated by the two lights 7 uniformly distributed through the area covered by the light guide 5. (col. 3, lines 50-61) Additionally, Liao implements at least one plate-like diffuser 3 to further uniformly distribute projected light from the two lights 7. (col. 4, lines 3-10) In this manner, the two lights 7 would not readily or reliably have respective shadows associated therewith.

CONCLUSION

The Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for reasons clearly apparent, the Applicants respectfully request full allowance of all pending claims. If there are any matters that can be discussed by telephone to further the prosecution of the Application, the Applicants invite the Examiner to contact the undersigned at 512-372-8240 at the Examiner's convenience.

Respectfully Submitted,
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